

ULTRAFLOOR®

Building on Technology

Series One



Lintels & Hobs

Fire-rated, High Strength,
Prestressed Concrete Ultralintels & Hobs

"The Ultrafloor system is one of the most innovative products introduced to the building industry in the last decade and their Ultralintels are very useful too."

Malcolm Mac Donald, Chateau Constructions Pty Ltd



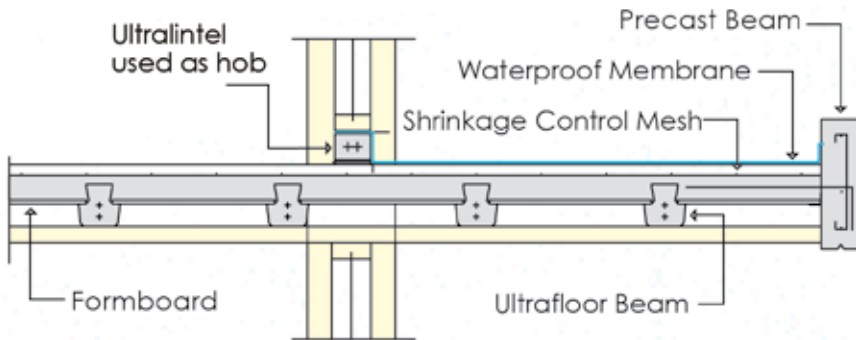
Hobs

Installation of Hobs

The Ultralintel sections are bonded to the top of the concrete slab so as to create an upstand or "hob" of the desired height.

An edge hob is achieved by bonding the Ultralintel flush with the slab edge as shown in the photographs. Waterproofing is achieved by extending the bitumen coating or suitable membrane up the external face of the hob.

For information on other aspects of the system, refer to the latest edition of the Ultrafloor Technical Manual.



Hob being bonded to slab edge.



Waterproofing membrane being formed.



Completed hob.



Ultralintel being bonded to create the hob.

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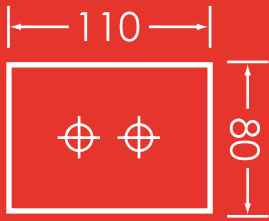
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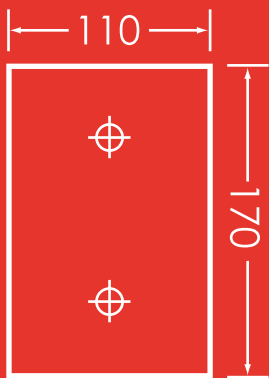
ultrafloor (aust) pty ltd

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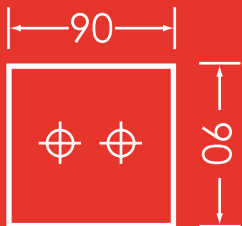
Product Data



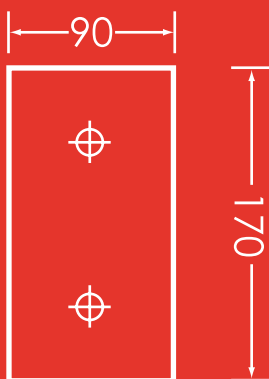
110 x 80mm Standard Ultralintel
Fire Resistance Level = 60 minutes
Weight = 21kg/m



110 x 170mm Standard Ultralintel
Fire Resistance Level = 120 minutes
Weight = 45kg/m



90 x 90mm Modular Ultralintel
Fire Resistance Level = 60 minutes
Weight = 20kg/m



90 x 170mm Modular Ultralintel
Fire Resistance Level = 90 minutes
Weight = 37kg/m

Bearing Lengths:
spans \leq 1200mm : 100mm
spans $>$ 1200mm : 150mm

Stock Lengths:
900, 1000, 1200, 1500, 1800, 2100, 2400, 2700, 3000, 3300, 3600

(Longer lengths can be made to order.)

Ultrafloor Ultralintels and Hobs

Ultrafloor Ultralintels are:

- Made of high strength concrete under strict quality control.
- Manufactured in four convenient sizes to suit all standard and modular bricks and are easily rendered or covered with gyprock internally.
- Fire rated under load in accordance with AS 1530.4-1990.
- Non-corrodible and thus ideal for marine and industrial exposure conditions.
- Able to be used in pier and beam situations for new house foundations and also for re-cladding of existing houses.
- Ideal for use in creating an upstand ("hob") on a concrete slab.

The load charts provided in this brochure indicate the safe maximum span when Ultrafloor Ultralintels are installed in various configurations.

Construction Notes

Composite Action

The load carrying capacity of the Ultrafloor Ultralintels increases significantly when they act compositely with the brickwork above. This additional strength depends on the number of brick courses applied and the tables provided in this brochure give an indication of the maximum spans in different configurations.

The following instructions are important:

- **Ultralintels must be placed with the rough side on top to provide a proper key to the masonry above;**
- **Ultralintels must be propped at intervals not exceeding 1500mm until the masonry mortar has matured.**

Bearing Length

The minimum end bearing of the Ultralintel on the brickwork is 100mm for spans up to 1200mm and 150mm for longer spans, based on the assumption of a minimum brick crushing strength of 20 MPa.

Any abnormal loading situation must be referred to the Ultrafloor Technical Department for further advice.

110 x 80mm Standard Prestressed Ultralintel

SAFE WORKING LOADS (kN/m) Based on the strength of the Ultralintel only

	CLEAR OPENING (mm)											
	900	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200
To satisfy L/1000 deflection	10.2	5.7	3.2	2.0	1.4	–	–	–	–	–	–	–
To satisfy L/300 deflection	26.0	11.7	6.3	3.8	2.5	1.7	1.2	–	–	–	–	–

SAFE WORKING LOADS (kN/m) Based on the composite strength of the Ultralintel and brickwork only

	CLEAR OPENING (mm)											
	900	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200
To satisfy L/1000 deflection	23.5	17.6	11.5	6.6	4.1	2.6	1.8	1.3	–	–	–	–
2 courses of standard bricks over the Ultralintel	41.4	31	24.8	20.6	17.6	13.4	9.3	6.8	5	3.8	3	2.3
4 courses of standard bricks over the Ultralintel	63.2	47.3	37.8	31.5	27	23.6	20.9	18.8	14.3	11	8.6	6.8

110 x 170mm Standard Prestressed Ultralintel

SAFE WORKING LOADS (kN/m) Based on the strength of the Ultralintel only

	CLEAR OPENING (mm)											
	900	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200
To satisfy L/1000 deflection	41.3	25.1	12.6	7.1	4.3	2.8	1.8	1.2	–	–	–	–
To satisfy L/300 deflection	41.3	32.0	26.0	18.9	13.8	10.2	7.0	5.0	3.7	2.7	2.0	1.5

SAFE WORKING LOADS (kN/m) Based on the composite strength of the Ultralintel and brickwork only

	CLEAR OPENING (mm)											
	900	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200
To satisfy L/1000 deflection	41.3	26.3	16.6	11.4	8.3	6.2	4.6	3.2	2.3	1.7	1.2	–
2 courses of standard bricks over the Ultralintel	48.3	36.1	28.8	23.9	19.8	15.1	11.8	9.5	7.8	6.5	5.2	4.1
4 courses of standard bricks over the Ultralintel	64.3	48.1	38.4	32	27.3	23.9	21.2	17.3	14.2	11.9	10	8.6

The following notes apply to all Ultrafloor Ultralintels:

1. Mortar must be Classification M3 in accordance with AS3700-1998. Ratio of cement to sand must be 1:6 or better.
2. All vertical and horizontal joints must be completely filled with mortar.
3. The surface of the Ultralintel must be moistened, in hot weather, to provide a good key until brickwork has matured.
4. 100mm end bearing for spans less than 1200mm and 150mm end bearing for spans greater than 1200mm assuming a minimum brick crushing strength of 20 MPa.
5. The self-weight of the Ultralintel has been allowed for in the calculations.
6. For load span tables for modular Ultralintels (90x90 and 170x90) please refer to web site www.ultrafloor.com